REMARKS

In the Office Action dated March 24, 2004, claims 1-14 and 17-20 are pending. Claims 10-13 are withdrawn from consideration as drawn to non-elected subject matter. Claims 4-6 are objected to because these claims allegedly recite non-elected subject matter. Claims 1-4, 8, 14, and 17-20 are rejected under 35 U.S.C. §112, first paragraph, for allegedly lacking enabling support in the specification. Claims 1-3, 8-9, 14 and 17-20 are rejected under 35 U.S.C. §102(b) as allegedly anticipated by Justice et al. (U.S. Patent No. 5,364,842).

This Response addresses each of the Examiner's rejections and objections. Applicants therefore respectfully submit that the present application is in condition for allowance.

Favorable consideration of all pending claims is therefore respectfully requested.

The Examiner has objected to claims 4-6 because these claims allegedly recite nonelected subject matter. The Examiner has indicated that with respect to claim 4, only the peptide of SEQ ID NO: 2 is directed to the elected subject matter.

In this regard, Applicants observe that in the Office Action setting forth a Requirement for Restriction, the Examiner stated:

The application contains further claims directed to the following patentably distinct compounds, (which have different primary structures) of the claimed invention: specific peptides of SEQ ID NO: 5-32, specific nucleic acids encoding these peptides and antibodies directed against each of these peptides. Applicant is required under 35 U.S.C. §121 to elect a single disclosed compound for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

See, Page 2, last paragraph of the Office Action dated December 16, 2002 (emphasis added).

Although Applicants have elected SEQ ID NO: 5 in response to the Restriction Requirement, it is recognized that Applicants should not be required to restrict the claims to SEQ ID NO: 5 if the generic claim is allowable. It is observed that claims 4-6 ultimately depend on claim 1, the generic claim. That is, the ω-conotoxin peptides of claims 4-6, as presently amended, share a common structural feature of having a fourth loop which comprises SEQ ID NO: 1, as characterized in claim 1. SEQ ID NO: 5 is merely a specific peptide that contains a fourth loop comprising SEQ ID NO: 1. Applicants firmly believe that claim 1, as presently amended, is allowable. Therefore, Applicants should not be required to restrict the claims to only SEQ ID NO: 5.

Furthermore, the Examiner states, in the current Office Action, that the search conducted has been directed to SEQ ID NO: 1 and SEQ ID NO: 5. Applicants respectfully submit that because the peptides of claims 4-6 all contain the subsequence of SEQ ID NO: 1, it would not create an additional search burden for the Examiner to consider claims 4-6 together with claim 1.

Accordingly, Applicants respectfully submit that the objection to claims 4-6 is overcome. Withdrawal of the objection is therefore respectfully requested.

The Examiner has rejected claims 1-4, 8, 14, 17-20 under 35 U.S.C. §112, first paragraph, for allegedly lacking enabling support in the specification.

The Examiner admits that the specification is enabling for the disclosed peptides of SEQ ID NOs: 5-7 and 14-31, and for ω -conotoxins that bind to calcium channels and contain the subsequences SEQ ID NOs: 1-2. However, the Examiner contends that the specification does not reasonably provide enablement for ω -conotoxins comprising one or more conservative amino acids or side chain modifications to SEQ ID NO: 1, as presently claimed.

Applicants disagree with the Examiner and respectfully submit that the specification provides adequate guidance for the ω-conotoxin peptides, as presently claimed. However, in an effort to favorably advance prosecution of the present application, Applicants have amended claims 1, 4, 17,18 and 20 by deleting the recitation relating to modifications of SEQ ID NO: 1. As such, Applicants respectfully submit that the rejection of claims 1-4, 8, 14 and 17-20 under 35 U.S.C. §112, first paragraph, is overcome. Withdrawal of the rejection is therefore respectfully requested.

Claims 1-3, 8-9, 14 and 17-20 are rejected under 35 U.S.C. §102(b) as allegedly anticipated by Justice et al. (U.S. Patent 5,364,842). The Examiner has indicated that Justice et al. teach the use of ω-conotoxins including TVIA, SNX-207 and SNX-236 in blocking N type calcium channels (see Example I), induction of analgesia (Example 7), and in screening methods for compounds which bind to calcium channels (Example 3). The Examiner contends that this reference anticipates the claimed subject matter because each of the ω-conotoxins disclosed by Justice et al. contains, in the 4th loop between cysteine residues 5 and 6, a hexapeptide sequence which is derived from SEQ ID NO: 1 by substitution.

Applicants respectfully submit that the claims have been amended by deleting the language relating to modifications of SEQ ID NO: 1. As such, the presently claimed subject matter is not anticipated by Justice et al. Therefore, Applicants respectfully request the Examiner to withdraw the rejection under 35 U.S.C. §102(b).

In view of the foregoing amendments and remarks, it is firmly believed that the instant application is in condition for allowance, which action is earnestly solicited.

Respectfully submitted,

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